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11
12 UNITED STATES DISTRICT COURT
13
14 NORTHERN DISTRICT OF CALIFORNIA
15
16 SAN FRANCISCO DIVISION
17

18 UNITED STATES OF AMERICA,

19 Plaintiff,

20 v.

21 VICTOR TURK,

22 Defendant.

Case No. CR 18-00463 CRB

**DEFENDANT'S MOTION FOR
COMPASSIONATE RELEASE
PURSUANT TO 18 U.S.C. § 3582(C)(1)(A)**

23 **NOTICE**

24 PLEASE TAKE NOTICE that, at a date and time convenient to the Court for a telephonic/video
25 hearing, Mr. Turk will and hereby does move the Court for an order for his release from custody. This
26 motion is made on the grounds that Mr. Turk suffers from a serious medical condition that places him at
27 high risk of a severe illness or death should he contract COVID-19, and that compassionate release to
28 home confinement is permitted and appropriate under the circumstances.

1 This motion is based on 18 U.S.C. § 3582(c)(1)(A), the attached memorandum of points and
2 authorities, the concurrently filed declaration of counsel, report by cardiologist Dr. George Bren,
3 medical records for Mr. Turk, and upon such evidence and argument as may be presented at the hearing.

4 **Introduction**

5 Victor Turk, through counsel, respectfully requests that this Court order his compassionate
6 release pursuant to 18 U.S.C. § 3582(c)(1)(A) due to the COVID-19 pandemic.
7 Mr. Turk is a 45-year-old male who has Non-Rheumatic Aortic Stenosis which is an abnormality of the
8 aortic valve. This is a congenital condition that degenerates over time. A recent examination by a
9 cardiologist confirmed that Mr. Turk's aortic stenosis is severe.¹ Mr. Turk is housed at USP Lompoc,
10 the medium security prison. As this Court is aware, this specific facility has been battling COVID-19
11 for months, at one point, having the largest outbreak of any BOP facility in the nation. The facility is
12 currently under a court order regarding the handling and release of inmates due to the outbreaks. Mr.
13 Turk continues to be at high risk for suffering serious complications, and even death, from COVID-19
14 should he contract the virus.² Remaining in custody is certainly a potential death sentence for Mr. Turk
15 and, therefore, compassionate release is warranted.

16 **Procedural History**

17 On July 31, 2019, Mr. Turk was sentenced by this Court to serve 120 months in custody based
18 on his plea to a violation of 21 U.S.C. §§ 846, 841(a)(1), (b)(1)(B)- Possession with Intent to Distribute
19 50 Grams or More of Methamphetamine and 18 U.S.C. § 924(c)(1)(A)- Carrying or Possessing a
20 Firearm During and in Furtherance of a Drug Trafficking Crime. His current release date is February
21 16, 2027.³

22 Mr. Turk submitted a written request to the warden of USP Lompoc for Mr. Turk to be granted
23 compassionate release. On August 14, 2020, the warden denied Mr. Turk's request for release.
24

25
26 ¹ See, Medical Records for Mr. Turk attached as Exhibit B.

27 ² See, Report by Dr. George Bren attached as Exhibit A.

28 ³ See <https://www.bop.gov/inmateloc/> (last visited September 21, 2020).

1
2 **Legal Authority**

3 As amended by the First Step Act, 18 U.S.C. § 3582(c)(1)(A)(i) authorizes courts to modify a
4 term of imprisonment. The relevant portion of this section states:

5 [T]he court, upon motion of the Director of the Bureau of Prisons, or upon motion of
6 the defendant after the defendant has fully exhausted all administrative rights to appeal
7 a failure of the Bureau of Prisons to bring a motion on the defendant's behalf or the
8 lapse of 30 days from the receipt of such a request by the warden of the defendant's
9 facility, whichever is earlier, may reduce the term of imprisonment (and may impose a
10 term of probation or supervised release with or without conditions that does not exceed
the unserved portion of the original term of imprisonment), after considering the factors
set forth in section 3553(a) to the extent they are applicable, if it finds that (i)
extraordinary and compelling reasons warrant such a reduction ... and that such a
reduction is consistent with applicable policy statements issued by the Sentencing
Commission.

11 The relevant Sentencing Commission policy statement, USSG § 1B1.13(1)(A), sets forth several
12 extraordinary and compelling reasons. Application Note 1(A) provides that "extraordinary and
13 compelling reasons" exist where "[t]he defendant is . . . suffering from a serious physical or medical
14 condition . . . that substantially diminishes the ability to provide self-care within the environment of a
15 correctional facility and from which he or she is not expected to recover."

16 In order to be entitled to relief under 18 U.S.C. § 3582(c)(1)(A), Mr. Turk must (1) meet the
17 exhaustion requirement and (2) demonstrate that "extraordinary and compelling reasons" warrant such a
18 reduction. The court hearing the motion must find a reduction is consistent with applicable policy
19 statements issued by the Sentencing Commission and consider factors set forth in 18 U.S.C. § 3553(a).

20 **A. Mr. Turk has Exhausted his Administrative Remedies**

21 In 2018 Congress expanded the statute in the First Step Act of 2018. Pub. L. No. 115-391,
22 § 603(b), 132 Stat. 5194, 5239 (Dec. 21, 2018). As amended, § 3582(c)(1)(A)(i), now permits this Court
23 to consider motions filed by the defendant so long as "the defendant has fully exhausted all
24 administrative rights to appeal a failure of the Bureau of Prisons to bring a motion on the defendant's
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1 behalf,” or after “the lapse of 30 days from the receipt of such a request by the warden of the
2 defendant’s facility, whichever is earlier[.]”⁴ Mr. Turk meets the exhaustion requirement.

3 **B. There are extraordinary and compelling circumstances to release Mr. Turk from**
4 **Lompoc.**

5 It is no longer a theoretical discussion as to whether COVID-19 will impact the prison system.
6 As of September 21, 2020, there have been 121 federal inmates who have died and two staff members.⁵
7 Since April, the impact to the Lompoc Correctional Complex, specifically the USP medium security
8 where Mr. Turk is housed, has been significant, As set forth in great detail in the Complaint by
9 individuals incarcerated at Lompoc against the warden of Lompoc and the Director of the BOP, Lompoc
10 was the site of the largest COVID-19 outbreak at a BOP facility.⁶

11 The CDC has warned that COVID-19 poses a heightened risk to those incarcerated in jail and
12 prisons. *See Interim Guidance on Mgmt of Coronavirus Disease 2019 (COVID-19) in Correctional and*
13 *Detention Facilities*, Ctrs for Disease Control and Prevention 2 (March 23, 2020).⁷ The CDC’s dire
14 predictions have borne out in correctional institutions around the country – including at Lompoc. *See*
15 *Castillo v. Barr*, 2020 U.S. Dist.LEXIS54425 at *2 (C.D. Cal. Mar. 27, 2020); *see also Torres, supra*.
16 BOP’s “containment measures have already proven insufficient to prevent the spread of COVID-19.”
17 *United States v. Rodriguez*, 2020 U.S. Dist.LEXIS 58718 at *9 (E.D. Penn. April 1, 2020).

21 ⁴ Congress specifically noted the “documented infrequency with which the BOP filed motions for a
22 sentence reduction on behalf of defendants.” *United States v. Redd*, No. 1:97-CR-00006-AJT, 2020 WL
23 1248493, at *7 (E.D. Va. Mar. 16, 2020). Accordingly, “while the First Step Act did preserve the BOP’s
24 role relative to a sentence reduction in certain limited respects, it eliminated the BOP Director’s role as
the *exclusive* channel through which a sentence reduction could be considered by courts.” *Id.* (emphasis
in original).

25 ⁵ See <https://www.bop.gov/coronavirus/>

26 ⁶ See *Torres, et.al. v. Milusnic*, No. 2:20-cv-04450 (C.D. Cal. May 16, 2020), ECF No. 1 at ¶ 2.

27 ⁷ See [https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-](https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html)
28 [correctional-detention.html](https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html)

Mr. Turk's Health

Mr. Turk's heart condition renders him uniquely susceptible to severe and potentially fatal complications of COVID-19. The CDC has issued a report that lists medical conditions broken down into Tiers 1 and 2. Tier one conditions are conditions that are known to increase the risk of developing severe or fatal COVID-19 disease. Tier 2 are conditions that might increase risk. Mr. Turk's aortic stenosis falls into Tier 1 as a "serious heart disease." As noted in the report from Dr. Bren, Mr. Turk's medical condition is "relatively uncommon", so unlike hypertension or diabetes, there is little reference for cases; however, Dr. Bren is clear that his condition is a "serious heart disease" as defined by the CDC and that, severe aortic stenosis like Mr. Turk's, "would be expected to increase these risks [of death] even higher than those other conditions in the generic category of 'serious heart conditions'".⁸ Furthermore, and even more concerning, is that Mr. Turk's heart condition is accompanied by symptoms. Given he is symptomatic with severe aortic stenosis, Dr. Bren opines that Mr. Turk's risk of death, if he was to contract COVID-19, is substantial. Further, Dr. Bren opines that Mr. Turk needs invasive valve treatment, regardless of the pandemic- this is how serious his condition has become.

Coupling Mr. Turk's heart condition coupled with the explosive outbreaks of the virus in prison facilities, there are "extraordinary and compelling reasons" to order Mr. Turk's immediate release rather than forcing him to serve out the time remaining on his sentence under threat of a potentially fatal infection. As this pandemic has progressed, this Court, as well as many courts across the country, have ordered the release of defendants.

It is acknowledged that Mr. Turk has a significant portion of his sentence remaining, but this should not deter this Court from ensuring that Mr. Turk not end up with a death sentence should he

⁸ See, Report by Dr. George Bren attached as Exhibit A.

1 remain in custody. In *United States v. Boykin*, CR-14-201 EGS (D.C. July 16, 2020), having served
2 only five years of a fifteen year sentence for firearms and narcotic charges, the court ordered release
3 where Boykin suffered from obesity, asthma, hypertension, sleep apnea and pre-diabetes.

4 Further, while Mr. Turk does have a criminal history and there may be concerns about this,
5 Judge Alsup ordered the release of a defendant in custody for felon in possession of a firearm. *United*
6 *States v. Lipine Faafiu*, CR 17-0231 WHA. Mr. Faafu is obese with high blood pressure and
7 hypertension. He was being housed at USP Atwater where, at the time, there were no confirmed
8 coronavirus cases. The court was concerned with the danger to community Mr. Faafu presented, but in
9 his order recognized that “any risk or danger he does pose can be mitigated with highly restrictive
10 conditions in home confinement.” *See Id.* at ECF Document 75, Order, filed June 22, 2020. Similar
11 restrictive measures can also be set in place for Mr. Turk.

12
13 Earlier this month, Judge Miranda M. Du, from the District of Nevada, ordered the release of
14 defendant, Dewan Kauwe who was serving time for involvement in a methamphetamine conspiracy.
15 (*United States v. Kauwe*, CR-14-00044-MMD-WGC, ECF Document 568, Order, filed August 10,
16 2020.) Mr. Kauwe filed three motions for compassionate release and was about halfway through a sixty-
17 five month sentence. He was also housed at USP Lompoc. The court also stated that, even though the
18 initial outbreak at Lompoc had subsided, that USP Lompoc is a more dangerous place than if he was
19 released to his family. *Also, see, e.g., United States v. Perez*, 2020 U.S. Dist.LEXIS 57265 (SDNY Apr.
20 1, 2020)(the court noted that Perez’ medical conditions justified release. “Confined to a small cell where
21 social distancing is impossible, Perez cannot provide self-care because he cannot protect himself from
22 the spread of a dangerous and highly contagious virus”); *United States v. Rodriguez*, 2020 U.S. Dist.
23 LEXIS 58718 (E.D.Pa. Apr. 1, 2020) (“the outbreak of COVID-19 and underlying medical conditions
24 that place [defendant] at a high risk should he contract the disease” justified release).
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1 **B. Release is consistent with Sentencing Commission policy statements and the Section**
2 **3553(a) factors.**

3 Section 3582 directs the Court to consider applicable Sentencing Commission policy statements
4 as well as the sentencing factors under 18 U.S.C. § 3553(a) in determining whether to exercise its
5 authority to reduce a sentence. The applicable policy statements and sentencing factors weigh in favor of
6 release. The applicable policy statement provides that “extraordinary and compelling reasons” exist
7 where “[t]he defendant is . . . suffering from a serious physical or medical condition . . . that
8 substantially diminishes the ability to provide self-care within the environment of a correctional facility
9 and from which he or she is not expected to recover.” *USSG § 1B1.13, Application Note 1(A)*. That is
10 the case with Mr. Turk given his heightened risk should he contract COVID-19: his severe aortic
11 stenosis substantially diminishes his ability to protect against potentially fatal complications. It is very
likely that his heart will simply not be able to withstand this disease.

12 The section 3553(a) factors similarly weigh in favor of release. At the outset, section
13 3553(a)(2)(D) requires the Court to consider the health of a defendant. Granting Mr. Turk
14 compassionate release to a sentence of home confinement will permit him to take advantage of any
15 continued medical care he may require without delay or hindrance. As noted by Dr. Bren, he is need of
16 a valve replacement soon- in the next few months.

17 Compassionate release also is consistent with the guidelines’ goal of just punishment. Under
18 *Pepper v. United States*, 562 U.S. 476, 490-93 (2011), the Court can, and indeed must, consider post-
19 offense developments under § 3553(a). Here, the overriding factor under § 3553(a) that was not present
20 at the time of sentencing is the COVID-19 pandemic and the serious risks it presents. Mr. Turk does not
21 contest his original punishment and does not suggest that it was excessive or unreasonable, however,
22 “just punishment” does not warrant a sentence that includes exposure to a life-threatening illness. In
23 fact, the Eighth Amendment’s prohibition on cruel and unusual punishment includes unreasonable
24 exposure to dangerous conditions in custody. *Helling v. McKinney*, 509 U.S. 25, 28 (1993); *see also*
25 *Wallis v. Baldwin*, 70 F.3d 1074, 1076 (9th Cir. 1995) (applying *Helling* to exposure to asbestos);
26 *Brown v. Mitchell*, 327 F. Supp. 2d 615, 650 (E.D. Va. July 28, 2004) (applying *Helling* to contagious
27 diseases caused by overcrowding conditions). While it is true that Mr. Turk has a considerable amount

1 of his sentence remaining, this must be weighed against the seriousness of his medical condition and the
2 very real possibility the contracting COVID-19 could be fatal.

3 Lastly, this Court can certainly protect the public by imposing strict conditions that this Court
4 determines are necessary to address any concerns that Mr. Turk is a danger to the public. Mr. Turk was
5 convicted of non-violent crimes and has had no disciplinary issues while in custody. He has been a
6 “Unit Orderly/Head Orderly” for about the past ten months.

7 Mr. Turks’ release plan is to live with his mother who is prepared to financially support Mr.
8 Turk. Throughout his case, and while serving his sentence, Mr. Turk continues to maintain a very close
9 relationship with this family. Mr. Turk has also spoke to his pastor and is working with him to find
10 employment.

11 Additionally, section 3553(a)(2)(D) directs the Court to consider what sentence would best
12 provide the defendant with needed medical care. “He is unlikely to be able to get the medical care he
13 needs at Lompoc in the midst of the pandemic.” *United States v. Robinson*, 2020 WL 1982872 (N.D.
14 Cal. Apr. 27, 2020) at *5 (citations omitted). Mr. Turk needs a serious medical procedure and he needs
15 it soon. Mr. Turk can best access needed medical care at home, where he will resume care with his
16 regular medical provider.

17 **Relief Requested**

18 Mr.Turk asks the Court to grant his request for compassionate release and place him on a term of
19 home confinement with any conditions this Court finds are necessary to meet the sentencing factors.

20 DATED: September 21, 2020

Respectfully submitted,

21 /s/ Sara Rief
22 SARA RIEF

23 *Attorney for Defendant VICTOR TURK*

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14 UNITED STATES OF AMERICA,
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18 Defendant.

Case No. CR 18-00463 CRB

DECLARATION OF SARA RIEF

19 I, Sara Rief, declare the following:

- 20
- 21 1. I have been appointed to represent Mr. Turk in both his underlying matter and in the filing of his
- 22 motion requesting compassionate release. I have personal knowledge of the facts stated in this
- 23 declaration and would testify competently to these facts if called as a witness.
- 24
- 25 2. I am informed and believe that Mr. Turk sent a letter to the warden requesting compassionate
- 26 release and, that on August 14, 2020, the warden denied Mr. Turk's request for release.
- 27

1 3. I have spoken to Dodie Turk, his mother, and can confirm that Mr. Reyes would be living at her
2 residence and that she would be supporting him financially.

3 4. I have obtained Mr. Turk's medical records from the Bureau of Prisons via my client. I also
4 obtained his medical records via a release for a recent cardiologist examination offsite. These
5 records are attached as Exhibit B. Because these records contain both personal identifying
6 information and information that may be within the scope of confidentiality protections afforded
7 by the Health Insurance Portability and Accountability Act ("HIPPA"), I request that Exhibit B
8 be filed under seal. A separate motion and proposed sealing order are being filed with the court.
9 I declare under penalty of perjury that the foregoing is true and correct.
10

11 Executed on September 21st, 2020 in San Francisco, California.
12

13 /s/ Sara Rief
14 SARA RIEF
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Case No. CR 18-00463 CRB

**[PROPOSED] ORDER FOR
COMPASSIONATE RELEASE
PURSUANT TO 18 U.S.C. § 3582(C)(1)(A)**

[PROPOSED] ORDER

20 It is hereby ordered that, pursuant to 18 U.S.C. §3582(C)(1)(A), Mr. Turk be released from the
21 custody of the Bureau of Prisons and be placed on a period of home confinement with restrictions as
22 determined by the probation office.

23 **IT IS SO ORDERED.**

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27 Hon. Judge Charles R. Breyer
28 UNITED STATES DISTRICT COURT

EXHIBIT A

GEORGE BREN, M.D.
1700 KALORAMA RD. N.W.
#409
WASHINGTON, D.C. 20009

9/16/20

Re: Victor John Turk
DOB: 8/27/75
Reg. #: 25181-111

To whom it may concern,

I am a general cardiologist with Board certification in Internal Medicine as well as Cardiovascular Disease. I have served on the full-time faculty at George Washington University where I was Associate Professor of Medicine (Cardiology) and Emergency Medicine. I have been in private practice since 1989.

I have completed a review of the medical records of Victor John Turk (DOB: 8/27/75, Reg. # 25181-111) as provided by the Federal Bureau of Prisons (BOP) covering the period 11/14/19 to 8/10/20 with regards to possible compassionate release under 18 U.S.C. §3582(c)(1)(A).

The records show that Mr. Turk is a 45 year old former smoker who suffers from the following medical conditions:

Non-Rheumatic Aortic Stenosis - Although this is not specifically listed as a formal diagnosis in the provided medical record, the record refers to this condition on multiple occasions and the diagnosis has been confirmed both by a local cardiology consultant and by a subsequent echocardiogram.

Aortic stenosis (AS) is an abnormality of the aortic valve in which, for a variety of potential reasons, the valve, which sits between the left ventricle and the aorta, does not open fully as the left ventricle is ejecting blood out of the heart into the aorta and thence to the body. This results in an increase in the amount of work the left ventricle must perform when pumping, and, when severe, can result in an inability of the heart to pump sufficient blood to meet the body's needs at the time, which is obviously quite a dangerous situation.

In Mr. Turk's case, his aortic stenosis is not the result of rheumatic fever, at one time by far the most common cause of AS, but rather due to a congenital condition called bicuspid aortic valve in which the valve has 2 sections (cusps) instead of the usual 3. The abnormal valve is subject to more than the usual wear and tear over time, resulting in a progressive degeneration of the valve and in progressive worsening of the degree of stenosis. Measures of the severity of this condition include the presence of certain echocardiographic findings and the presence or absence of symptoms due to the AS.

Mr. Turk's echocardiogram, performed on 8/10/20, confirms that his aortic stenosis is in the severe range. The diagnosis of severe AS is based on certain echocardiographic findings, including a calculation of the cross-sectional area of the valve orifice when fully opened (aortic valve area, or AVA) and a measure of the extra pressure required to open the

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stenotic valve and maintain a normal cardiac output as compared to a normal valve (pressure gradient). In Mr. Turk's case, the echocardiogram shows an AVA of 0.8 cm² and a peak pressure gradient of 64 mm of mercury, both considered in the severe range. The echo further showed that the strength of the heart muscle appeared normal, although an electrocardiogram (ECG) shows abnormal thickening of the muscle, a finding to be expected given the extra work the muscle must perform.

It should be noted that these echocardiographic parameters which define severe AS are not randomly chosen, but rather are based on the fact that severe AS is truly defined to be that the degree of stenosis which can have important health consequences, including heart failure and death. The echocardiographic definitions of severe AS are selected to be those parameters that correlate with the onset of this high-risk period.

Mr. Turk's medical record also indicates that in recent months, as initially reported in the record on 3/5/20, Mr. Turk has been bothered by symptoms of shortness of breath (dyspnea) with exertion and chest pain with exertion. These text-book symptoms of severe AS result from the fact that the heart is unable to meet its pumping requirements if those requirements increase even a small amount. Thus, the development of symptoms in the course of AS progression implies that the disease has reached an even more severe stage, resulting in even higher risk of heart failure and death. As a result, the standard treatment for severe, symptomatic AS is invasive valve replacement to directly alleviate the stenosis. It is my opinion that Mr. Turk should be treated with invasive valve replacement in the next several months, irrespective of COVID-19 related risks.

Anxiety disorder - This is a chronic problem with Turk that is being treated with the drug buspirone.

Major Depressive Disorder - This is also a chronic problem which is currently being treated with mirtazapine. He is not considered to be suicidal.

On 7/20/20 the Centers for Disease Control and Prevention (CDC) issued a report (People with Certain Medical Conditions (1)), which includes a list those medical conditions which (co-morbidities) that are known to increase the risk of developing severe or fatal COVID-19 disease (so-called Tier 1 conditions) and those that might increase risk (Tier 2). Mr. Turk has "serious heart disease" a CDC-recognized Tier 1 risk indicator.

Because severe AS is relatively uncommon, particularly in Mr. Turk's age demographic, there appear to have been too few cases amongst those with COVID-19 to draw meaningful, statistically relevant conclusions. Thus, the CDC does not specifically note that severe AS is a Tier 1 condition, but rather includes it in a generic category it terms "serious heart disease". As has been noted above, severe AS certainly is a form of "serious heart disease" given the health hazards that can result even in the absence of other stressors such as COVID-19. This is even more true when symptoms are present which, in conjunction with the echocardiographic findings, indicate that the heart is unable cope with simple, day-to-day stressors such as walking, let alone the majors stressors induced by COVID-19, including the extra work of

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breathing, tachycardia, sepsis, fever, low oxygen levels, etc., all of which prove to be very poorly tolerated in an individual with an already over-taxed heart.

The CDC, in their report, cite several studies that discuss the relationship between "serious heart conditions" and severe or fatal COVID-19 disease. As noted, these reports refer to a spectrum of heart conditions which a clinician would consider to be serious, without specifically referring to severe AS due to its low prevalence and therefore the inability to provide statistically meaningful findings as compared to other, more common, forms of heart disease.

Thus, the CDC cites work by Chen, et. al.(2) which reviewed the outcomes of 1590 hospitalized patients with proven COVID-19 disease. The presence of coronary artery disease (in which plaque forms in the walls of the the coronary arteries which can result in death or myocardial infarction) increased the risk of severe or fatal COVID disease by a factor of 4.28. A report by Williamson, et. al.(3) followed the course of approximately 17 million adults enrolled in the UK National Health Service. 5,683 of these adults ultimately died of COVID-19, with serious heart conditions, in which they specifically include the presence of severe valvular disease, increasing the risk of death by a factor of 2.01. Zheng et. al. (4) published the results of a meta analysis of COVID-19 outcomes The analysis included 13 earlier reports involving 3027 confirmed COVID-19 patients with cardiovascular disease. In this population the risk of dying was 5.19 times higher than those without heart disease and the odds of developing heart injury was increase 43-fold. Yang et. al. (5) also performed a meta analysis that included 7 studies and 1576 COVID-19 patients. The presence of cardiovascular disease increased the risk of dying from COVID by a factor of 3.42. The CDC's conclusion that serious heart conditions rightfully belong in the Tier 1 category appears well-justified.

Additionally, based on readily available data, it appears that federal inmates are at higher risk of contracting and of dying from COVID-19. Federal BOP data as presented on their website (6) (accessed 9/15/20) show that there have been a total of 53,266 COVID tests performed on a total of 126,754 federal inmates, of which 13,299 were positive with results pending in 2,042 individuals. The BOP additionally reports that there are currently 1,930 inmates with positive tests (who presumably are undergoing either active treatment or observation) while 11,476 inmates have recovered and 119 have died.

Because only about 40% of federal inmates have been tested (53,266 tests/126,724 inmates) the actual number of COVID-19 cases is almost assuredly even higher than the stated figures. Nevertheless, several observations can be made regarding these figures.

Firstly, although the BOP points out that, as more than 1 test may have been positive in a given inmate, one can not equate the number of positive tests with the number of positive individuals. A careful analysis of their data shows that these 2 figures are in actuality almost identical. All patients with positive tests must be in 1 of 3 categories; those with current, active disease, those who have recovered and those who have died. This total of 13,525 inmates (1,930 + 11,476 + 119) is virtually identical to the 13,299 reported positive tests. Note that the reported figures indicate more infected inmates than the total number of positive tests, indicating some inaccuracy in reporting. For simplicity's sake, the inmates with pending tests can be ignored due to their small relative number.

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Second, despite the diligent approach taken by the BOP, federal inmates are testing positive for coronavirus at higher rates than the general population. The available data show that 13,523 of 53,266 tested inmates are SARS-CoV-2 positive, yielding a positivity rate of 25%, a rate which is substantially higher than the national average which stands at 8.0% since 3/1/20 and at 5.8% for the week of 9/4-9/11/20 (7).

In addition, federal inmates have a higher mortality rate from COVID-19 as compared to the general population. The BOP reports 119 deaths/126,754 federal inmates, which is equivalent to 94 deaths/100,000 individuals. In contrast, the nationwide mortality rate is 59/100,000 since the onset of the pandemic (8). Again, note that pending test results can be safely ignored without altering these conclusions.

There are many potential factors that could explain the observed differences in the COVID-19 infection and mortality rates between federal inmates and the general population, including differences in environment, the ability to socially distance, availability of personal protective equipment, and demographics. The key point, however, is that despite the many precautionary measures taken by the BOP, there remain significant differences between BOP data and the overall US figures as reported by the CDC and Johns Hopkins University which indicate that federal prisoners have a significantly higher risk of both infection and death from COVID-19 than the general US population.

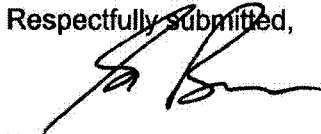
Based on the above, it is my opinion that:

Mr. Turk has severe AS which substantially increases his risk of developing severe or fatal COVID-19 disease should he become infected. Although one is unable to quantify this risk due to the disease's low prevalence, the nature of severe AS would be expected to increase these risks even higher than those other conditions in the generic category of "serious heart conditions."

Irrespective of Mr. Turk's COVID status, he should have invasive valve replacement within the next few months, based solely on the severity of his AS.

Despite the best efforts of the BOP, federal inmates are at a higher risk of contracting and dying from COVID-19 disease than the general population.

Respectfully submitted,



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References:

- <https://www.CDC.gov/coronavirus/2019-ncov-need-extra-precautions/people-with-certain-medical-conditions.html>
- (2) Chen, R., et. al. *Risk Factors of Fatal Outcome in Hospitalized Subjects with Coronavirus Disease 2019 from a Nationwide Analysis in China*. CHEST
 - (3) Williamson, E., et. al., *OpenSAFELY: factors associated with COVID-19-related death in the linked electronic health records of 17 million adult NHS patients*. medRxiv, 2020: p. 2020.05.06.20092999
 - (4) Zheng, Z., et. al., *Risk of critical & mortal COVID-19 cases: A systematic literature review and meta-analysis*. Journal of infection, 2020
 - (5) Yang, J., et. al., *Prevalence of comorbidities and its effects in patients infected with SARS-CoV-2: a systematic review and meta-analysis*. International Journal of Infectious Diseases 2020. 94: p. 91-95
 - (6) <https://www.bop.gov/coronavirus/> (accessed 9/15/20)
 - (7) <https://www.cdc.gov> (accessed 9/15/20)
 - (8) <https://www.coronavirus.jhu.edu> (accessed 9/15/20)

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PUBLICATIONS

ARTICLES

1. McManus BM, Bren GB, Robertson EA, Katz RJ, Ross AM, Roberts WC: Hemodynamic Cardiac Constriction Without Anatomic Myocardial Restriction or Pericardial Constriction. American Heart Journal 102:134-136, July 1981.
2. Bren GB and Katz RJ: Diagnosis and Evaluation of Paroxysmal Atrial Tachycardia. Practical Cardiology 7:57-68, December 1981.
3. Wasserman AG, Bren GB, Ross AM, Richardson DW, Hutchinson RG, and Rios JC: Prognostic

Curriculum Vitae
George B. Bren, M.D.
Page: 4

Implications of Diagnostic Q Waves Post Myocardial Infarction (Q waves post MI). *Circulation* 65:1451-1455, 1982.

4. Johnson RA, Wasserman AG, Leiboff RH, Katz RJ, Bren GB, Varghese PJ, Ross AM: Intravenous Digital Left Ventriculography at Rest and with Atrial Pacing as a Screening Procedure for Coronary Artery Disease. *JACC* 2(5):905-910, November 1983.
5. Leiboff RH, Bren GB, Katz RJ, Korkegi R, Ross AM: Determinates of Transstenotic Gradients Observed During Angioplasty: An Experimental Model. *Am Cardiol* 52:1311-1317, December 1983.
6. Leiboff RH, Katz RJ, Wasserman AG, Bren GB, Schwartz H, Varghese PJ, Ross AM: A Randomized Angiographically Controlled Trial of Intracoronary Streptokinase in Acute Myocardial Infarction. *Am J Cardiol* 53:404-407, February 1984.
7. Wasserman A, Katz RJ, Varghese PJ, Leiboff RH, Bren GB, Schlesselman S, Varma V, Reba R, Ross AM: Exercise Radionuclide Ventriculographic Responses in Hypertensive Patients with Chest Pain. *N Eng J Med* 311:1276-80, November 1984.
8. Schwartz H, Leiboff RH, Bren GB, Wasserman A, Katz R, Varghese PJ, Sokil A, Ross AM: Temporal Evolution of the Human Coronary Collateral Circulation after Myocardial Infarction. *JACC* 4(6):1088-93, December 1984.
9. Schwartz H, Leiboff RH, Katz RJ, Wasserman AG, Bren GB, Varghese PJ, Ross AM: Arteriographic Predictors of Spontaneous Improvement of Left Ventricular Function Following Myocardial Infarction. *Circulation* 71(3):466, March 1985.
10. TIMI Study Group. The Thrombolysis in Myocardial Infarction (TIMI) Trial: Phase I Findings. *N Eng J Med* 312:932-6, April 1985.
11. Gold RL, Bren GB, Katz RJ, Varghese PJ, Ross AM: Independent and Interactive Effects of Digoxin and Quinidine on the Atrial Fibrillation Threshold in Dogs. *JACC* 6:119-123, July 1985.
12. Gold R, Katz RJ, Bren GB, Varghese PJ, Ross AM: Treatment of Sinus Node Re-entrant Tachycardia with Verapamil. *Am Heart J* 109(5), Part I, 1104-1108, May 1985.
13. Schaer DH, Leiboff RH, Katz RJ, Wasserman AG, Bren GB, Varghese PJ, Ross AM: Recurrent Early Ischemic Events after Thrombolysis for Acute Myocardial Infarction. *Am J Cardiol* 59:788, 1987.

14. Bren GB, Wasserman AG, Ross AM: The Electrocardiogram in Patients Undergoing Thrombolysis for Myocardial Infarction. *Circulation* 76:, Supp II:II 18, 1987.

ABSTRACTS

1. Rios JC, Wasserman A, Bren GB, Ross AM: Does location or late disappearance of Q waves after myocardial infarction affect prognosis? *American Journal of Cardiology* 45:400, 1980. (Presented at the 29th Annual Scientific Session of the American College of Cardiology, March 1980).
2. Wasserman AG, Rios JC, Bren GB, Katz RJ, Bogaty D, and Ross AM: Prognosis after infarct: Stratification by Q wave evolution. *American Journal of Cardiology* 47:465, February 1981. (Presented at the 30th Annual Scientific Session of the American College of Cardiology, March 1981).
3. Bren GB, Varghese PJ, Katz RJ, and Ross AM: Arrhythmogenicity of Encainide. The role of QT interval. *Am J Cardiol* 47:498, February 1981. (Presented at the 30th Annual Scientific Session of the American College of Cardiology, March 1981).
4. Bren GB, Varghese PJ, Rios JC, Katz RJ, Wasserman AG, Ross AM: Prevention of ventricular fibrillation by verapamil: Minimum effective dose. *Clinical Research* 30 (2):175A, April 1982.
5. Wasserman AG, Bogaty D, Bren GB, Ross AM, Rios JC: Recurrent myocardial infarction: Stratification by electrocardiographic location. *Clinical Research* 30 (2):175A, April 1982.
6. Bren GB, Varghese PJ, Katz RJ, Ross AM: Change in ventricular refractoriness after a premature beat and its return to steady state in man. *Clinical Research* 30 (2):175A, April 1982.
7. Leiboff RH, Bren GB, Katz R, Korkegi R, Katz B, and Ross AM: Determinants of transstenotic gradients observed during angioplasty. *Am J Cardiol* 49:917, March 1982. (Presented at the 31st Annual Scientific Session of the American College of Cardiology, April 1982).
8. Bren GB, Varghese PJ, Leiboff RH, Ross AM: Electrophysiologic mechanism for the antifibrillatory action of verapamil. *Am J Cardiol* 49:1043, March 1982. (Presented at the 31st Annual Scientific Session of the American College of Cardiology, April 1982).
9. Leiboff RH, Ross AM, Katz R, Wasserman A, Bren G, and Varghese PJ: A randomized controlled trial of intracoronary streptokinase in acute MI. Preliminary (cautionary) observations. *Clinical Research* 30 (2):200A, April 1982. (Presented at the AAP/ASCI/AFCR National Meeting, May 1982).

10. Ross A, Johnson R, Wasserman A, Katz R, Bren G, Leiboff R, Varghese P: Intravenous digital left ventriculography as a screening procedure for coronary disease: Accurate imaging of wall motion abnormalities. *Clinical Research* 30 (2):216A, April 1982. (Presented at the AAP/ASCI/AFCR National Meeting, May 1982).
11. Ross AM, Johnson R, Wasserman AG, Katz RJ, Bren GB, Leiboff RH, and Varghese PJ: Intravenous digital left ventriculography at rest and with atrial pacing as a screening procedure for coronary disease. *Circulation* 66:II-228, 914, October 1982. (Presented at the 55th Annual Scientific Session of the American Heart Association, November 1982).
12. Varghese PJ, Bren GB, and Ross AM: Electrophysiology of external pacing: A comparative study with endocardial pacing. *Circulation* 66:II-349, 1395, October 1982. (Presented at the 55th Annual Scientific Session of the American Heart Association, November 1982).
13. Katz RJ, Wasserman AG, Leiboff RH, Bren GB, Varghese PJ, and Ross AM: The importance of left anterior descending stenosis in the ejection fraction response to exercise radionuclide ventriculography. *Circulation* 66:88-93, 249, October 1982. (Presented at the 55th Annual Scientific Session of the American Heart Association, November 1982).
14. Leiboff RH, Katz RJ, Wasserman AG, Bren GB, Varghese PJ, and Ross AM: A randomized controlled trial of intracoronary streptokinase in acute MI: Preliminary (cautionary) observations. *Circulation* 66:II-334, 1337, October 1982. (Presented at the 55th Annual Scientific Session of the American Heart Association, November 1982).
15. Wasserman AG, Johnson R, Katz RJ, Leiboff RH, Bren GB, Varghese PJ, and Ross AM: Comparison of ischemic wall motion abnormalities: Radionuclide vs intravenous digital techniques. *Circulation* 66:II-228, 913, October 1982. (Presented at the 55th Annual Scientific Session of the American Heart Association, November 1982).
16. Wasserman AG, Katz RJ, Varghese PJ, Leiboff RH, Bren GB, and Ross AM: The response of hypertensives to exercise radionuclide ventriculography. *Journal of the American College of Cardiology* 1(2):650, February 1983. (Presented at the 32nd Annual Scientific Session of the American College of Cardiology, March 1983).
17. Ross AM, Johnson R, Wasserman AG, Katz RJ, Bren GB, Leiboff R, Varghese PJ: Intravenous digital subtraction angiography: Applications in coronary artery disease. (Scientific Exhibit presented at the 32nd Annual Scientific Session of the American College of Cardiology, March 1983).
18. Schwartz H, Katz RJ, Leiboff R, Sokil A, Wasserman AG, Varghese PJ, Bren GB, Ross AM: The

Curriculum Vitae
George B. Bren, M.D.
Page: 7

temporal evolution of the coronary collateral circulation after acute myocardial infarction in man. Journal of the American College of Cardiology 1 (2):580, February 1983. (Presented at the 56th Annual Scientific Session of the American Heart Association, November 1983).

19. Ross AM, Johnson R, Katz RJ, Varghese PJ, Leiboff RH, Bren GB, Schwartz H, Wasserman AG: Diagnosis of coronary artery disease by aortic digital subtraction angiography. Circulation 68:III-43, 170, October 1983. (Presented at the 56th Annual Scientific Session of the American Heart Association, November 1983).
20. Wasserman AG, Schwartz H, Johnson RA, Katz RJ, Leiboff RH, Bren GB, Varghese PJ, Ross AM: Digital subtraction angiography combined with atrial pacing to detect additional ischemic zones after myocardial infarction. Circulation 68:III-41, 162, October 1983. (Presented at the 56th Annual Scientific Session of the American Heart Association, November 1983).
21. Katz RJ, Bren GB, Varghese PJ, Gold RL, Ross AM: Oral propafenone for refractory ventricular arrhythmias - predictors of efficacy. Circulation 68:III-271, 1082, October 1983. (Presented at the 56th Annual Scientific Session of the American Heart Association, November 1983).
22. Johnson R, Wasserman AG, Katz RJ, Leiboff RH, Bren GB, Varghese PJ, and Ross AM: Correlation of coronary stenosis and contrast density decay curves by on-line subtracted digital fluoroscopy. Journal of the American College of Cardiology 3:588, 1984. (Presented at the 33rd Annual Scientific Session of the American College of Cardiology, March 1984.)
23. Wasserman AG, Johnson R, Schwartz H, Katz RJ, Leiboff RH, Bren GB, Varghese PJ, Ross AM: Digital subtraction/angiography: Expanding uses in heart disease. (Scientific Exhibit presented at the 33rd Annual Scientific Session of the American College of Cardiology, March 1984).
24. Schwartz H, Leiboff RH, Wasserman AG, Katz RH, Bren GB, Varghese PJ, Johnson R, Ross AM: Coronary arteriographic descriptors of spontaneous improvement in ejection fraction after acute infarction. Journal of the American College of Cardiology, 3:575, 1984. (Presented at the 33rd Annual Scientific Session of the American College of Cardiology, March 1984).
25. Schwartz H, Katz RJ, Leiboff RH, Wasserman AG, Bren GB, Varghese PJ, Johnson R, Ross AM: Guidelines for the use of contrast induced hyperemia for digital angiographic analysis of coronary blood flow. (Presented at the 57th Annual Scientific Session of the American Heart Association, November 1994).
26. Johnson R, Wasserman AG, Katz RJ, Leiboff RH, Bren GB, Tannenbaum ES, Ross AM: Correlation of coronary anatomy and function using contrast density decay curves by on-line subtracted digital fluoroscopy. (Presented at the 57th Annual Scientific Session of the American Heart Association, November, 1984).

27. Ross AM, for the TIMI Investigators, NHLBI, Bethesda, MD: Electrocardiographic and angiographic correlations in myocardial infarction patients treated with thrombolytic agents: A report from the NHLBI Thrombolysis in Myocardial Infarction (TIMI) Trial. *Journal of the American College of Cardiology*, Vol. 5, No. 2, February 1985. (Presented at the 34th Annual Scientific Session of the American College of Cardiology, March 1985).
28. Bren GB, Gold RL, Sokil A, Katz RJ, Varghese PJ, Ross AM: The effects of autonomic tone on post defibrillation arrhythmias. *Clinical Research* 33(2), April 1985. (Presented at the National Meeting, American Federation for Clinical Research, May 1985).
29. DeCarli C, Varghese PJ, LaRosa JC, Bren GB, Rios JC, Ross AM: Electrophysiologic effect of Digoxin on magnesium deficient atria and AV node in dogs. *Clinical Research* 33(2), April 1985. (Presented at the National Meeting, American Federation for Clinical Research, May 1985).
30. Varghese PJ, Bren GB, Katz RJ, Gold RL, ROss AM: Internal defibrillation of the atrium: Importance of electrode position. *Clinical Research*, Vol. 33, No. 2, April 1985.
31. Schaer DH, Leiboff RH, Wasserman AG, Katz RJ, Schwartz H, Schmidt SB, Bren GB, Varghese PJ, Ross AM: Exercise testing after infarction/thrombolysis identifies patent vessels and residually ischemic myocardium. *Circulation* 72:III-1673, 1985. (Presented at the 58th Annual Scientific Session of the American Heart Association, November, 1985).
32. Bren GB, Wasserman AG, Sheehan FH, Forman S, Dodge HT, Ross AM, and the TIMI Investigators: Electrocardiographic evolution during acute myocardial infarction as a correlate of left ventricular functional outcome. *Circulation* 72:III-1673, 1985. (Presented at the 58th Annual Scientific Session of the American Heart Association, November, 1985).
33. Schaer DH, Katz RJ, Leiboff RH, Bren GB, Schwartz H, Schmidt SB, Varghese PJ, Wasserman AG, Ross AM: Ischemic double jeopardy following reperfusion for acute myocardial infarction. *Circulation* 72:III-218, 1985. Presented at the 58th Annual Scientific Session of the American Heart Association, November, 1985).
34. Bren GB, Wasserman AG, Ross AM: Hazards of using post thrombolytic ST segment evolution as a reperfusion marker. Observations from the TIMI trial. *Journal of the American College of Cardiology* 7:17A, 1986. (Presented at the 35th Annual Scientific Session of the American College of Cardiology, March, 1986).
35. Schaer DH, Leiboff RH, Wasserman AG, Martin LW, Varghese PJ, Katz RJ, Bren GB, Bren T, Magee M, Ross AM: Long term follow-up of patients receiving intracoronary streptokinase compared with randomly assigned controls. *Journal of the American College of Cardiology* 7:19A, 1986. (Presented at the 35th Annual Scientific Session of the American College of Cardiology, March, 1986).

Curriculum Vitae
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Page: 9

36. Schaer DH, Wasserman AG, Leiboff RH, Martin LW, Katz RJ, Bren GB, Varghese PJ, Ross AM: Prevalence of recurrent ischemia following thrombolytic therapy in a cohort of single disease patients. *Journal of the American College of Cardiology* 7:65A, 1986. (Presented at the 35th Annual Scientific Session of the American College of Cardiology, March, 1986).
37. Steinberg JS, Katz RJ, Bren GB, Buff L, Varghese PJ, Wasserman AG, Ross AM: Efficacy of oral diltiazem to control rest and exercise ventricular response in atrial fibrillation. *Journal of the American College of Cardiology* 7:157A, 1986. (Presented at the 35th Annual Scientific Session of the American College of Cardiology, March, 1986).
38. Bren GB, Wasserman AG, El-Boyouni J, Ross AM: Comparison of DDD and rate responsive VVI pacing during exercise. *Circulation* 74 Supp II: II-38, 1986. Presented at the 59th Annual Scientific Session of the American Heart Association, November, 1986).
39. Schaer DH, Leiboff RH, Wasserman AG, Katz RJ, Bren GB, Varghese PJ, Ross AM: The need for mechanical therapy after successful thrombolysis. *Circulation Supp II:II-429*, 1986. Presented at the 59th Annual Scientific Session of the American Heart Association, November, 1986).
40. Bren GB, Wasserman AG, Ross AM: Electrocardiographic infarct evolution is accelerated by successful thrombolysis. *Journal of the American College of Cardiology* 9:63A, 1987. (Presented at the 36th Annual Scientific Session of the American College of Cardiology, March, 1987).
41. Bren GB, Wasserman AG, Ross AM: Coronary perfusion status in Q and non-Q wave infarction patients presenting with ST elevation. *Circulation* 76, Supp IV:IV-123, 1987. Presented at the 60th Annual Scientific Session of the American Heart Association, November, 1987).